IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Case No. 04-051)

In re Application of:	)	
Brian T. Cunningham.	)	Group Art Unit: 2874
	)	
Serial No.: 10/812,635	)	
	)	
Filed: March 29, 2004	)	
	)	
For: Photonic Crystal Defect Cavity Biosensor	)	Confirmation No. 3485

TRANSMITTAL LETTER

Mail Stop Missing Parts
Commissioner for Patents
P.O Box 1450
Alexandria, Virginia 22313-1450

In regard to the above identified application:

1. We are transmitting herewith the attached:
1. Information Disclosure Statement
2. Form PTO-1449
3. Cited references
4. Return postcard

2. With respect to additional fees:
A. _X_ No additional fee is required.
B. ___ Attached is a check in the amount of $0.
C. ___ Charge the total additional fee to our Deposit Account No. **13-2490**.

3. Please charge any additional fees or credit overpayment to Deposit Account No. **13-2490**. A duplicate copy of this sheet is enclosed.

4. CERTIFICATE OF MAILING UNDER 37 CFR § 1.8: The undersigned hereby certifies that this Transmittal Letter and the paper, as described in paragraph 1 hereinabove, are being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, PO Box 1450, Alexandria, Virginia, 22313-1450 on this 10 day of August 2004.

By: _____
Thomas A. Fairhall
Reg. No. 34,591

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INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to the duty of disclosure provided by 35 C.F.R. § 1.56 and §§ 1.97-98, the applicant wishes to make the following references and information of record in the above-identified application. The references are also listed in the PTO-1449 form enclosed herewith. It is requested that the references and information be given careful consideration and that they be cited of record in the prosecution history of the present application so that they will appear on the face of the patent issuing from the present application. Pursuant to the office's waiver of 37 C.F.R. § 1.98 (a)(2)(i), copies of the U.S. patent documents are not enclosed.

In the judgment of the undersigned, portions of the references may be material to the examination of the pending claims. No representation is intended as to the relative importance of any portion of the references. This Statement is not a representation that

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the cited references have effective dates early enough to be "prior art" within the meaning of 35 U.S.C. §§ 102 or 103.

CITED REFERENCES

U.S. PATENT DOCUMENTS

Patent No.	Date Filed	Inventor	Class/ Subclass	
2003/0113766 A1	06/19/03	Pepper et al.	435	6
2003/0017581 A1	01/23/03	Li et al.	435	2872
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2003/0027327 A1	02/06/03	Cunningham et al.	435	287.2
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2003/0027328 A1	02/06/03	Cunningham et al.	435	287.2
2003/0077660 A1	04/24/03	Pien et al.	435	7.1
2003/0026891 A1	02/06/03	Qiu et al.	427	58
2003/0092075 A1	05/15/03	Pepper	435	7.9

Other Documents:

1. Pacradouni, V., W.J. Mandeville, A.R. Cowan, P. Paddon, J.F. Young, and S.R. Johnson, *Photonic band structure of dielectric membranes periodically textured in two dimensions.* Physical Review B, 2000. 62(7): p. 4204-4207.
2. Yablonovitch, E., *Inhibited spontaneous emission in solid-state physics and electronics.* Physical Review Letters, 1987. 58(20): p. 2059-2062.
3. Quang, T., M. Woldeyohannes, S. John, and G.S. Agarwal, *Coherent control of spontaneous emission.* Physical Review Letters, 1997.79(26): p. 5238-5241.
4. Liu, Z.S., S. Tibuleac, D. Shin, P.P. Young, and R. Magnusson, *High efficiency guided-mode resonance filter.* Optics Letters, 1998.23(19): p. 1556-1558. Neviere, M., P.

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6. Magnusson, R. and S.S. Wang, *New principle for optical filters.* Applied Physics Letters, 1992. 61(9): p. 1022-1024.
7. Magnusson, R. and S.S. Wang, *Transmission bandpass guided-mode resonance filters.* Applied Optics, 1995.34(35): p. 8106-8109.
8. Peng, S., *Experimental demonstration of resonant anomalies in diffraction from two-dimensional gratings.* Optics Letters, G. Michael Morris. 21(8): p. 549-551.
9. Wang, S.S. and R. Magnusson, *Theory and applications of guided-mode resonance filters.* Applied Optics, 1993.32(14): p. 2606-2613.
10. Wang, S.S., R. Magnusson, J.S. Bagby, and M.G. Moharam, *Guided-mode resonances in planar dielectric-layer diffraction gratings.* J. Optical Society of America A, 1990.7(8): p. 1470-1474.
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12. Cunningham, B. T., P. Li, B. Lin, and J. Pepper, *Colorimetric resonant reflection as a direct biochemical assay technique.* Sensors and Actuators B, 2002.81: p. 316-328.
13. Cunningham, B.T., J. Qiu, P. Li, J. Pepper, and B. Hugh, *A plastic colorimetric resonant optical biosensor for multi parallel detection of label-free biochemical interactions.* Sensors and Actuators B, 2002.85: p. 219-226.
14. Haes, A.J. and R.P.V. Duyne, *A Nanoscale Optical Biosensor: Sensitivity and Selectivity of an Approach Based on the Localized Surface Plasmon Resonance Spectroscopy of Triangular Silver Nanoparticles.* Journal of the American Chemical Society, 2002. **124:** p. 10596-10604.
15. Li, P., B. Lin, J. Gerstenmaier, and B. T. Cunningham, *A new method for label-free imaging ofbiomolecular interactions.* Sensors and Actuators B, 2003.
16. John, S., *Strong localization of photons in certain disordered dielectric superlattices.* Physical Review Letters, 1987.58(23): p. 2486-2489.
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18. Painter, 0. K. Srinivasan, J.D. O'Brien, A. Scherer, and P .D. Dapkus, *Tailoring of the resonant mode properties of optical nanocavities in two-dimensional photonic crystal slab waveguides.* JQ\lcflla1 of Optics A: Pure and Applied Optics, 2001.3: p. S161-S170.
19. John, S. and V.1. Rupasov, *Multiphoton localization and propagating quantum gap solutions in a frequency gap medium.* Physical Review Letters, 1997.79(5): p. 821-824.
20. Altug, H. and J. Vuckovic, *Two-dimensional coupled photonic crystal resonator arrays.* Applied Physics Letters, 2004. 84(2): p. 161-163.

Respectfully submitted,

McDonnell Boehnen Hulbert & Berghoff LLP

Date: 8/10/04 By: _____

Thomas A. Fairhall
Reg. No. 34,591

CERTIFICATE OF MAILING

The undersigned hereby certifies that this Information Disclosure Statement is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia, 22313-1450 on this 10 day of August 2004

_____

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FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No.	Serial No.
		04-051	10/812,635
		Applicant: Brian Cunningham	
		Filing Date: 03/29/2004	Group: 2874

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
		2003/0113766 A1	06/19/03	Pepper et al.	435	6	
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FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

			1. Pacradouni, V., W.J.Mandeville, A.R. Cowan, P. Paddon, J.F. Young, and S.R. Johnson, *Photonic band structure of dielectric membranes periodically textured in two dimensions*, Physical Review B, 2000 62(7): p. 4204-4207.
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			20. Altug, H. and J. Vuckovic, *Two-dimensional coupled photonic crystal resonator arrays.* Applied Physics Letters, 2004. 84(2): p. 161-163.

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

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